

Certificate of Analysis

Arsenic ICP Standard, 10,000 ppm As in 5% HNO₃

Lot Number: 4401G41

Product Number: PAS10KN

Manufacture Date: JAN 09, 2024

Expiration Date: JUL 2025

The certified value for this product is confirmed in independent testing by a second qualified chemist. The uncertainty associated with the certified value is ± 0.5% relative, which is the sum of the estimated errors due to the purity of the raw material, the volumetric preparation of the solution, and transpiration of the solution through the container wall.

The final solution concentration is confirmed by AA, ICP, or ICP-MS, and is traceable to NIST Standard Reference Material 3103a. All trace level elements were determined by ICP or ICP-MS.

Name	CAS#	Grade
Water	7732-18-5	
Nitric Acid	7697-37-2	
Arsenic	7440-38-2	

Test	Specification	Result	NIST SRM#
Appearance	Colorless liquid	Passed	
Arsenic (As)	9950-10050 ppm	10000 ppm	3103

Trace Elements by ICP or ICP - MS

I=Spectral Interference N=Not Tested

All values reported in mg/L (ppm)

Aluminum (Al)	0.0574 ppm	Lead (Pb)	0.0200 ppm	Strontium (Sr)	< 0.00006 ppm
Antimony (Sb)	N	Lithium (Li)	< 0.03 ppm	Sulfur (S)	I
Barium (Ba)	< 0.0001 ppm	Lutetium (Lu)	< 0.0003 ppm	Tantalum (Ta)	0.1515 ppm
Beryllium (Be)	< 0.0001 ppm	Magnesium (Mg)	0.0139 ppm	Tellurium (Te)	0.5673 ppm
Bismuth (Bi)	0.7364 ppm	Manganese (Mn)	0.0539 ppm	Terbium (Tb)	N
Boron (B)	< 0.00005 ppm	Mercury (Hg)	< 0.03 ppm	Thallium (Tl)	0.1063 ppm
Cadmium (Cd)	0.0307 ppm	Molybdenum (Mo)	0.0375 ppm	Thorium (Th)	0.0023 ppm
Calcium (Ca)	< 0.004 ppm	Neodymium (Nd)	0.0002 ppm	Thulium (Tm)	N
Cerium (Ce)	0.0020 ppm	Nickel (Ni)	0.0378 ppm	Tin (Sn)	0.0011 ppm
Cesium (Cs)	0.0786 ppm	Niobium (Nb)	0.0540 ppm	Titanium (Ti)	0.0142 ppm
Chromium (Cr)	0.0193 ppm	Osmium (Os)	0.0069 ppm	Tungsten (W)	0.0868 ppm
Cobalt (Co)	0.0629 ppm	Palladium (Pd)	I	Uranium (U)	0.0001 ppm
Copper (Cu)	0.0773 ppm	Phosphorus (P)	I	Vanadium (V)	0.0246 ppm
Dysprosium (Dy)	< 0.0001 ppm	Platinum (Pt)	< 0.00003 ppm	Ytterbium (Yb)	< 0.001 ppm
Erbium (Er)	0.0001 ppm	Potassium (K)	< 0.00002 ppm	Yttrium (Y)	I
Europium (Eu)	< 0.00008 ppm	Praseodymium (Pr)	0.0003 ppm	Zinc (Zn)	I
Gadolinium (Gd)	< 0.0002 ppm	Rhenium (Re)	< 0.00003 ppm	Zirconium (Zr)	0.0266 ppm
Gallium (Ga)	0.0064 ppm	Rhodium (Rh)	< 0.00003 ppm		
Germanium (Ge)	0.0092 ppm	Rubidium (Rb)	0.0009 ppm		
Gold (Au)	I	Ruthenium (Ru)	< 0.00007 ppm		
Hafnium (Hf)	0.0146 ppm	Samarium (Sm)	< 0.002 ppm		
Holmium (Ho)	< 0.0001 ppm	Scandium (Sc)	0.0050 ppm		
Indium (In)	0.0168 ppm	Selenium (Se)	< 0.004 ppm		
Iridium (Ir)	I	Silicon (Si)	I		
Iron (Fe)	N	Silver (Ag)	0.1128 ppm		
Lanthanum (La)	0.0006 ppm	Sodium (Na)	0.9424 ppm		

Specification	Reference
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Arsenic ICP Standard, 1 mL = 10 mg As (1,000 ppm As) As in 3% HNO₃ EPA (200.7)

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 This standard is guaranteed to be stable and accurate provided the product is kept tightly capped and stored under normal laboratory conditions. Balances are calibrated using NIST traceable weights whose verification of maintenance and recalibration is documented per in-house Standard Operating Procedures. Class A glassware is also calibrated and routinely rechecked per in-house Standard Operating Procedures. Trace metal analyzed acids and Trace Metals Analyzed Water are used in the manufacture of this product. Triple cleaned containers are used in the manufacture of this product.

Part Number	Size / Package Type	Shelf Life (Unopened Container)
PAS10KN-100	100 mL natural LDPE	18 months

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Recommended Storage: 15°C - 30°C (59°F - 86°F)



Paul Brandon (01/09/2024)

Production Manager

This document is designed to comply with ISO Guide 31 "Reference Materials -- Contents of Certificates and Labels."

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